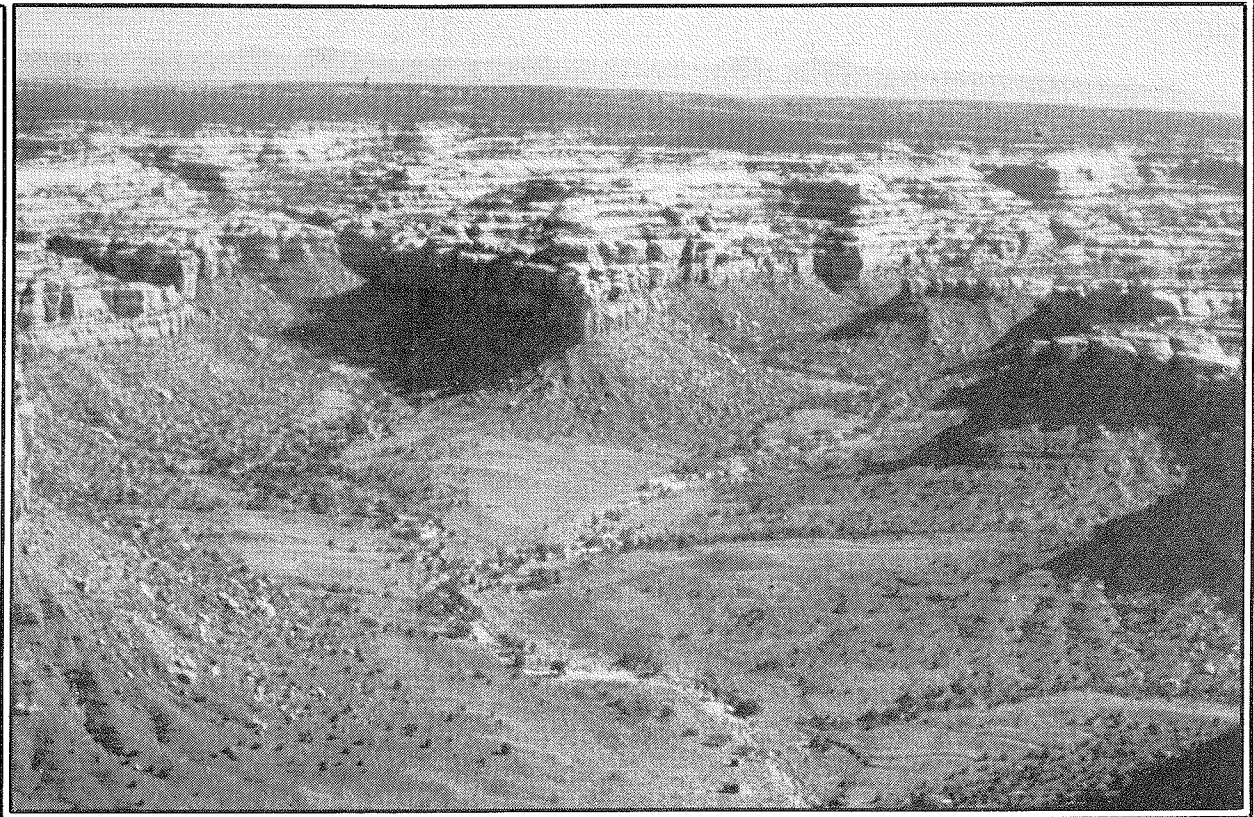


Grand Gulch Complex

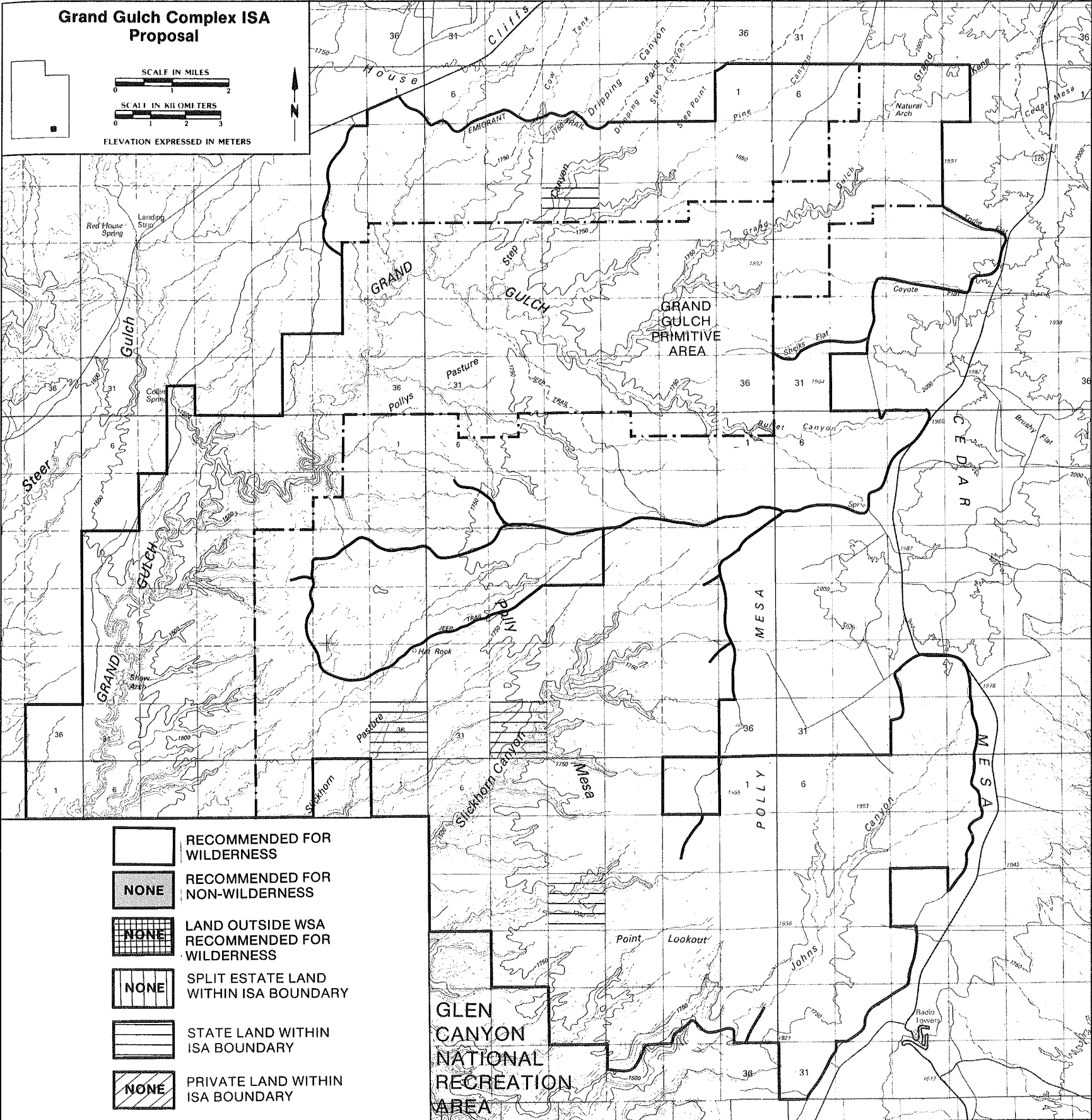


GRAND GULCH COMPLEX

R. 16 E.

R. 17 E.

R. 18 E.



GRAND GULCH INSTANT STUDY AREA COMPLEX

1. THE STUDY AREA: 105,520 acres

The Grand Gulch Instant Study Area (ISA) Complex is comprised of the Grand Gulch Primitive Area (37,580 acres), the Pine Canyon WSA (10,890 acres), the Bullet Canyon WSA (8,520 acres), the Sheiks Flat WSA (3,140 acres), and the Slick-horn Canyon WSA (43,390 acres). The study area is in San Juan County, about 45 miles west of Blanding, Utah (population 3,118). The ISA Complex is irregularly shaped, with an excluded center and linear boundaries on the west and northeast, and is about 19 miles from north to south and 16 miles from east to west.

Generally, the study area is bounded on the north by the historic Hole-in-the-Rock Trail, on the south by the Glen Canyon National Recreation Area (GCNRA),

and a combination of roads and legal subdivisions on the east and the west. A small area in the center of the ISA Complex, enclosed by a loop road on Polly's Mesa, is excluded (see Map). In total, the study area includes 105,520 acres of public land administered by the Bureau of Land Management (BLM). Four sections of State land (2,400 acres) are inheld within the ISA Complex (see Table 1).

The ISA Complex is in the Canyonlands Section of the Colorado Plateau Physiographic Province. The study area is predominantly a network of sinuous canyons, totalling more than 190 miles in length, that are tributary to the San Juan River. Grand Gulch, the main canyon in the complex, meanders about 53 miles and is as much as 400 to 600 feet deep in the middle segment.

**TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA***

WITHIN THE ISA COMPLEX	ACRES
BLM (surface and subsurface)	105,520
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	2,400
Total	107,920
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the ISA Complex)	105,520
BLM (outside the ISA Complex)	0
Split-Estate (within the ISA Complex)	0
Split-Estate (outside the ISA Complex)	0
Total BLM land recommended for wilderness	105,520
In-holdings (State, private)	2,400
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

Source: BLM File Data

* The appendix is a detailed table of in-holdings included within the portion of the ISA Complex recommended for designation.

GRAND GULCH INSTANT STUDY AREA COMPLEX

More than 25 canyons are partly or entirely within the ISA Complex; all are characterized by sheer rock walls, overhangs, pour-offs, knobs, alcoves, archaeological ruins, and rock art. The relatively broad John's Canyon, in the southeastern portion of the ISA Complex, is not part of the Grand Gulch Canyon Complex. The canyons in the ISA Complex penetrate a portion of Cedar Mesa, a very large platform north of the San Juan River. The remnants of the Mesa within the ISA Complex are hilly benches between the canyons. There are no perennial streams in the ISA Complex. Elevations in the ISA Complex range from 4,800 feet in the southwest to 6,400 feet in the northeast. Pinyon-juniper woodland, sagebrush, and blackbrush are the predominant types of vegetation. The climate is generally arid, with cold winters and warm to hot summers.

The ISA Complex was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Utah BLM Statewide Wilderness Environmental Impact Statement (EIS) finalized in November 1990. Three alternatives were analyzed in the EIS: an all wilderness alternative, which is the recommendation in this report; a no wilderness (no action) alternative; and a partial wilderness alternative of 37,580 acres.

Subsequent to publication of the Utah BLM Statewide Wilderness Final EIS, the Utah State Director approved the San Juan Resource Area Resource Management Plan (RMP). The plan includes 94,630 acres of the Grand Gulch ISA Complex in the Cedar Mesa Area of Critical Environmental Concern (ACEC) to protect cultural resources, scenic values, and natural values associated with primitive recreation. Within the ACEC, 49,130 acres are designated as the Grand Gulch special emphasis area. This area includes the Grand Gulch Primitive Area and a portion of the Slickhorn Canyon WSA. The special management requirements now in effect within the Grand Gulch special emphasis area portion of the ACEC, where consistent with valid existing rights, include: closure to off-highway vehicle (OHV) use; management to meet Visual Resource Management Class I objectives; closure to mineral leasing; proposed withdrawal from locatable mineral entry;

closure to geophysical work; closure to disposal of mineral materials; exclusion from private and commercial use of woodland products, except for limited on-site collection of dead wood for campfires; limitation of recreation use if cultural resources or scenic values are being damaged; exclusion from surface disturbance by mechanized or motorized equipment; exclusion of livestock use on 11,200 acres.

In the remaining 45,500 acres of the ISA Complex within the Cedar Mesa ACEC, the management requirements now in effect, where consistent with valid existing rights, include: open for mineral leasing, geophysical work and disposal of mineral materials with special conditions to protect cultural and scenic resources and primitive recreation opportunities; limitation of OHV use to designated roads and trails; limitation of private and commercial use of woodland products only on designated areas.

2. RECOMMENDATION AND RATIONALE:

105,520 acres

(recommended for wilderness)

0 acres

(not recommended for wilderness)

The recommendation for this ISA Complex is to designate all of the area, 105,520 acres, as wilderness. This is the environmentally preferable alternative as it would result in the least change from the natural environment over the long term. This recommendation will further apply to any additional in-holding acreage acquired through purchase or exchange with willing owners. The Appendix lists all in-holdings and provides additional information on acquisition.

All of the area is in a natural condition and has outstanding opportunities for primitive recreation. About 98 percent of the area has outstanding opportunities for solitude. The ISA Complex is well known for its extensive Anasazi Indian ruins and relics. Other special features are scenic, geologic, and historical resources.

Opportunities for hiking, backpacking, horseback riding, and archaeological and nature study draw thousands of visitors to this area on an annual basis.

GRAND GULCH INSTANT STUDY AREA COMPLEX

Approximately 94,630 acres of the area recommended for wilderness designation are in the Cedar Mesa ACEC where restrictions on OHV use, mineral and energy exploration and production, mineral material disposal, woodland harvest, visual impacts, surface disturbance by mechanized or motorized equipment, and livestock use would continue to be administratively applied if the area is released from wilderness consideration and protection of wilderness characteristics is not a management objective.

Considerable exploration for oil and gas in and near the ISA Complex has not resulted in commercial discoveries. About 47 percent of the ISA Complex is now closed to oil and gas leasing. There is potential for conflict with future oil and gas exploration activities; the potential for a significant find is considered low to moderate. No other conflicts exist with other land uses.

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

A. Naturalness

Naturalness is defined as an attribute in which the evidence of man is substantially unnoticeable to the average visitor and where minor imprints of man exhibit no cumulative impact that is substantially noticeable. Imprints cover less than 1 percent of the ISA Complex, and meet the naturalness standard for areas under wilderness review. The extensive canyon system and high concentration of archeological resources characterize the naturalness of the area. The extensive canyon system and high concentration of archaeological resources characterize the naturalness of the area. Overall, the 105,520 acres are natural in character.

Imprints of man within the ISA Complex are mostly the remains of rangeland developments (such as fences, livestock reservoirs, developed springs, and vegetation treatments) and vehicle ways. Major imprints were excluded from the

ISA Complex by boundary adjustments during the BLM Intensive Wilderness Inventory. The remaining imprints, including five reclaimed oil and gas test well sites, are not substantially noticeable within the ISA Complex as a whole. The several ways in the ISA Complex total more than 25 miles, but they are rehabilitating naturally and are becoming less noticeable.

Very few imprints of human activities exist in the Grand Gulch Primitive Area. These include some trail improvements in side canyons, a number of closed ways on the benches, a few trail signs, and two portable radio repeater installations. Some cultural sites have been stabilized.

Trail improvements in three locations in the ISA Complex during the 1950s and 1960 included blasting short sections of slickrock. Blasting in Collins Spring Canyon was the most substantial, affecting 75 feet of trail at a pour-over. The blasting at Kane Gulch and Government Trail is not evident to most hikers.

Other imprints are one reservoir near Hardscrabble Way and old seismic lines near ways in the western part of the unit.

The most substantial human imprint within the Pine Canyon WSA is a way in the eastern portion that extends 2.5 miles to an old drill site. The way was bladed through dense pinyon-juniper, but does not now appear to be maintained except by vehicle passage. Here and there vehicles have pulled off the way, probably for woodcutting. The disturbance is not very noticeable because of the screening provided by the dense pinyon-juniper in the area.

The Hole-in-the-Rock Trail, a rough jeep trail, forms the Pine Canyon WSA's northern boundary. Vehicle tracks extend from this trail in only a few places. A little used way that is difficult to follow extends into the unit on Dripping Point. Signs of seismic activity along this trail are disappearing.

In the western end of the Hole-in-the-Rock Trail, there is a steel post-barbed wire fence with a gate. A juniper log

GRAND GULCH INSTANT STUDY AREA COMPLEX

drift fence, dating to the 1920s, is in Dripping Canyon.

In the Bullet Canyon WSA, imprints resulting from grazing activities include four reservoirs, three feed troughs, three developed springs, two drift fences, and two railed areas. The sagebrush railings, completed about 1956, have regrown and are no longer noticeable. The four earthen dam stock reservoirs are all served by the boundary roads. Also, along the boundary within the unit are three metal feed troughs. The most developed spring is in the extreme southeastern part of the unit in a shallow, steep-walled canyon. This development consists of a metal pipe, cement box, and wood and metal trough constructed in 1944. The drift fences may be historic and consist of piled juniper logs; the one in the north has deteriorated and is no longer useful.

Six short seismic lines are along the unit's southern boundary road. The only one that is easily noticeable crosses Bullet Canyon from the trailhead parking area, and is aligned with the road on the north side of the canyon. It cuts through dense pinyon-juniper woodland. The other seismic lines are substantially unnoticeable, having been made through sage and sparse pinyon-juniper, and they have revegetated over the years.

Across the west-central part of the Bullet Canyon area, Hardscrabble Way crosses several washes to a reservoir just inside the Grand Gulch Primitive Area. A portion of this way is now closed to motorized vehicle travel.

Vehicle travel has created ways at two places in the eastern portion of the unit along the edge of Bullet Canyon. Both "ways" wind among the pinyon and juniper trees; the north "way" is now used solely by hikers. The one on the south appears to be the result of entry for firewood cutting.

Imprints in the Sheiks Flat WSA include an area where vegetation was scraped away 26 years ago by railing. The sagebrush has returned, obscuring most evidence of the railing. Two old seismic lines extend into the unit from the southern boundary road but are well

screened by pinyon-juniper forest and have little effect on naturalness. Four stock reservoirs in the area are also substantially unnoticeable. A way leaves the unit from the reservoir at the extreme southwest corner. The only other imprint is an old shepherd's structure north of the Coyote Flat road.

Imprints along the roads in northwest Slickhorn WSA are minimal within the unit and substantially unnoticeable. Near the Government Trailhead, an old seismic line and an old way are in the unit just north of the boundary road. Both are revegetated and are difficult to find. Further west, a juniper pole-barbed wire fence extends about 30 yards into the unit, north of the road. Near the end of the fence, a 40-foot live-stock access route has been bulldozed down to a spring.

In the northwestern part of the Slickhorn Canyon WSA, just north of the Polly's Mesa loop road, there is an earthen dam stock reservoir with cattails growing in it. Nearby there are numerous cattle paths and a metal water trough.

Another juniper pole-barbed wire fence in the central part of the ISA Complex extends across a narrow mesa top for about a 0.25 mile.

Near the junction of the Polly's Mesa loop road, a way leads a 0.5 mile to an old corral. Here, a deteriorating wooden fence encloses a small alcove. Below it is one of the previously mentioned reservoirs.

In the north-central part of this ISA Complex are two cherry-stemmed drill pads. In the stream bed just east of the most northern drill pad, a 10-foot stretch that has been bulldozed to allow cattle access to a spring is not noticeable because it is in the wash bottom.

On Point Lookout, a fence angles between the third fork of Slickhorn Canyon and a westerly fork of John's Canyon. The fence was built in 1980 with steel posts and four strands of barbed wire. It extends through moderately dense pinyon-juniper for about 2 miles. Tree cuts are minimal, but there are associated vehicle tracks made during construction.

GRAND GULCH INSTANT STUDY AREA COMPLEX

The pinyon and juniper trees effectively screen views of the fence from any distance other than directly on the fence line.

Also in the Point Lookout area, three reservoirs, a short way that connects two of the reservoirs, and a dilapidated spring improvement consisting of two troughs and a pipeline are at the south end of the cherry-stemmed county road. The way is maintained solely by the passage of vehicles, mostly over slick-rock. The Point Lookout reseeding of 640 acres was completed in 1963. Regrowth of sagebrush has occurred obscured plant deadfall and the flat, open area still has much grass. Most visitors probably would not recognize this area as a range plant manipulation project.

In the John's Canyon area, imprints are mainly on the bench tops, although in lower John's Canyon there are an old homestead site, a way, and an old steam drill hole. The homestead, which dates from the 1930s, consists of a corral of juniper poles with cables from the old drilling operation strung between them, the frame of a small tack shed, and two collapsed dugout structures. A juniper pole fenceline in disrepair, probably associated with the homestead, extends across the valley. A large stand of cottonwood trees provides shade and aids in screening these impacts.

The passage of vehicles up the valley of John's Canyon has created a way for 2.3 miles beyond the cherry-stemmed road and drill pad. The way crosses washes at three points, but for the most part it consists of two-wheel ruts over grass and sagebrush. The way ends at an old cowboy camp with a fire pit and old rusted cans. Since this way crosses the wide-bottomed, open valley, it is visible from most vantage points within 1 mile, especially from the canyon rims.

In the west fork of John's Canyon, are a capped drill hole, pipes, and a few other pieces of steel equipment. These have historic value as they are remnants of a steam-powered drilling operation in the early 1900s. Several pinyon trees were cut down in the area, probably for fuel to power the steam drill. The access road was apparently in the wash since there is no longer any sign of it.

The upper forks of John's Canyon are rugged and impassable to vehicles, although there are many access points for vehicles to the canyon rims from roads nearby and Highway 261. Off-road wood-cutting seems to be the reason for most of the vehicle tracks along the rims. Along the rim of the western-most fork of John's Canyon, the passage of vehicles created six ways totaling about 4.7 miles into the unit. The ways wind among the pinyon and juniper trees and cut through cryptogamic soil, a fragile arid environment soil composed partly of lichens and microorganisms.

The eastern boundary way serves nine reservoirs, only two of which are on the west side of the way and within the unit. One reservoir is U-shaped with a dam about 8 feet tall. The other has a 3-foot-tall dam and 25-foot-diameter reservoir.

Three short seismic lines on the mesa above John's Canyon are all less than 0.75 of a mile long. The lines were cut through moderately dense pinyon-juniper forest; hence, they are seen easily from the air but are well screened on the ground.

The Muley Point reseeding, in the extreme southeast portion of the ISA Complex, was done at the same time as the Point Lookout reseeding and has similarly revegetated with sage although many grasses still thrive. As with the Point Lookout reseeding, this disturbance would not be obvious to the average visitor.

Two steel pole and barbed wire fences extend very short distances into the unit on the rim of John's Canyon. A livestock trail has been bulldozed to a spring in Section 34. The trail is about 20 yards long and extends down from an overhanging ledge. Since the BLM Wilderness Inventory, three pasture fences were constructed and cultural resource sites have been stabilized. These actions were nonimpairing.

B. Solitude

More than 98 percent (103,920 acres) of the ISA Complex meets the outstanding opportunities for solitude criterion for areas under wilderness review, while

GRAND GULCH INSTANT STUDY AREA COMPLEX

1,600 acres do not. The ISA Complex is large enough to enhance the characteristics that promote solitude.

The ISA Complex includes four major canyons and numerous tributaries that total more than 190 miles. The meanders, high cliffs, and vegetation screening effectively block lines of sight and muffle sounds for any substantial distance. Outside intrusions and influences are almost nonexistent within the canyons. Most of the mesa tops have pinyon-juniper vegetation which, combined with the terrain and topographic relief, effectively screens visitors and allows for solitude. A major commercial flight path crosses over the Grand Gulch Plateau. The occasional high altitude overflights only remind a person of the outside world and do not detract from the opportunities for solitude within the ISA Complex.

In several small areas in the ISA Complex the opportunities for solitude are not outstanding.

About 800 acres in the western portion of the Pine Canyon WSA, have little topographic relief and contain mostly low-lying desert shrub with scattered pinyon-juniper trees. This area is adjacent to Highway 263, and motorized travel on this route limits the opportunities for solitude.

Another area is a 600-acre sagebrush flat adjacent to the southern boundary road in the Sheiks Flat WSA. The lack of screening allows vehicular travel on the road to reduce outstanding opportunities for solitude.

About 200 acres of sage flat and seedings in the southeastern corner of the Slickhorn Canyon WSA is within 1 mile of the Muley Point road. Travel on this road reduces outstanding opportunities for solitude.

Other areas adjacent to boundary roads are screened by pinyon-juniper woodland or are adjacent to boundary roads that are so infrequently traveled as to not disturb solitude. The Loop Road into Polly's Pasture is an example of the latter.

C. Primitive and Unconfined Recreation

In general, the entire ISA Complex meets the criteria for outstanding opportunities for primitive and unconfined recreation.

Grand Gulch and its side canyons are well known for their primitive recreation opportunities. Increasing numbers of hikers and backpackers are using Grand Gulch and Slickhorn and John's Canyons. Access points to the more than 190 miles of canyons are scattered enough to disperse users throughout the canyons.

Grand Gulch and Slickhorn Canyons also provide opportunities for side canyon excursions from float boating trips on the San Juan River. Hikers can also use the benches and mesa tops. Terrain limits horse access to the Collins, Kane Gulch, and government trailheads in the ISA Complex. Horseback travel is also possible over most of the mesa tops.

Sheer sandstone cliffs, pinnacles, knobs, arches, and an abundance of cliff dwellings all contribute to a high quality recreational, educational, and scientific experience. The striking scenery provides outstanding opportunity for high quality sightseeing and photography.

D. Special Features

The canyons of the ISA Complex contain a myriad of sandstone erosion forms in whites, reds, browns, and yellows. Canyons, pinnacles, pedestals, knobs, arches, and alcoves offer unique and dramatic views in nearly every part of the ISA Complex.

Long distance views from the mesa tops include such scenic focal points as Monument Valley, Navajo Mountain, Red House Cliffs, and the Henry Mountains.

Approximately 54 percent of the ISA Complex is rated outstanding for scenic quality.

The area contains extensive remains of the Anasazi Indian occupation from about 200 A.D. to 1300 A.D. There are 580 recorded sites and an estimated 12,360 additional sites. These consist of

GRAND GULCH INSTANT STUDY AREA COMPLEX

lithic scatters, walled fireplaces, pictographs, petroglyphs, pithouses, pottery shards, towers, cliff dwellings, and kivas. Not only are the sites of scientific importance, but they are also of interest to recreationists. The Grand Gulch Archaeological District (4,240 acres) was placed on the National Register of Historic Places in 1982.

Some historic features are also in the ISA Complex. A portion of the northern boundary follows the Hole-in-the-Rock Trail, the route the early Mormon settlers followed in 1879 to settle the town of Bluff, Utah. Evidence that cattlemen used the area in the early 1900s includes the Oliver Ranch in lower John's Canyon.

The ISA Complex has populations of cougar, bobcat, and possibly desert bighorn sheep which are wildlife species associated with wilderness. Peregrine falcons and bald eagles, which are listed as endangered species, may occasionally visit the ISA Complex.

The Utah Division of Wildlife Resources has identified this area as having potential for black-footed ferret. Seven other animal species and four plant species that are considered sensitive may occur in the ISA Complex. Refer to Appendix 4 and the Affected Environment, Vegetation and Wildlife Including Special Status Species sections of the Utah BLM Statewide Wilderness Final EIS for additional information. Approximately 54 percent of the ISA Complex is rated Class A for scenic quality.

Diversity in the National Wilderness Preservation System (NWPS)

A. Expanding the Diversity of Natural Systems and Features as Represented by Ecosystems

Wilderness designation of this ISA Complex would add a potential natural vegetation (PNV) ecosystem not presently represented in the NWPS. PNV is the vegetative type that would eventually become climax vegetation if not altered by human interference, and is not necessarily the vegetation that is currently present in an area.

The ISA Complex is in the Colorado Plateau Province/Ecoregion. The PNV in the ISA Complex is blackbrush (30,940 acres) and juniper-pinyon woodland (74,580 acres). Blackbrush PNV is currently not represented at all in the NWPS. Juniper-pinyon woodland PNV is well represented in the NWPS nationally and in Utah and in other BLM study areas both in and outside of Utah.

This information is summarized in Table 2 from data compiled in December 1989.

B. Assessing the Opportunities for Solitude or Primitive Recreation within a Days Driving Time (5 Hours) of Major Population Centers

The ISA Complex is not within a 5-hour drive of any major population centers.

**TABLE 2
ECOSYSTEM REPRESENTATION**

	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
BAILEY-KUCHLER CLASSIFICATION (PNV)				
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Blackbrush	0	0	11	199,124
Juniper-Pinyon Woodland	11	1,401,745	84	2,069,425
UTAH (COLORADO PLATEAU PROVINCE)				
Blackbrush	0	0	11	199,124
Juniper-Pinyon Woodland	1	26,000	53	1,631,618

Source: BLM File Data.

GRAND GULCH INSTANT STUDY AREA COMPLEX

C. Balancing the Geographic Distribution of Wilderness Areas

The Grand Gulch ISA Complex would not contribute significantly to balancing the geographic distribution of wilderness areas within the NWPS. As of January 1987, the NWPS included 93 areas comprising 5,475,207 acres in Utah and in Arizona and Colorado, the adjacent states nearest the ISA Complex.

A Grand Gulch Wilderness would supplement the NWPS in the Canyonlands Section of the Colorado Plateau, however, where there are just two established wilderness areas, totaling 70,751 acres. There are four designated wilderness areas within 100 miles of the ISA Complex. To the north is the 45,000-acre Dark Canyon Wilderness (U.S. Forest Service [FS]), to the east is the 8,100-acre Mesa Verde Wilderness (National Park Service [NPS]), to the southwest is the 112,400-acre Paria Canyon-Vermilion Cliffs Wilderness (BLM) and to the northwest is the 25,751-acre Box-Death Hollow Wilderness (FS).

Manageability (The area must be capable of being effectively managed to preserve its wilderness character.)

The ISA Complex could be managed as wilderness. There are no oil and gas leases. At present, 49,130 acres in the ISA Complex are closed to leasing by the San Juan RMP.

There are no mining claims in the ISA Complex. Because there is little or no potential for locatable minerals, location and/or development of mining claims is not expected. At present, 37,580 acres in the Grand Gulch Primitive Area portion of the ISA Complex are closed to entry under general mining laws.

There are four State sections (2,400 acres) in the ISA Complex. Major developments on these sections and related access and activity would reduce the quality of wilderness values in portions of the ISA Complex; however, the potential for development is low.

Domestic livestock grazing would continue as presently authorized and allotted. Use and maintenance of existing rangeland developments (reservoirs, fences,

seedings, 2.5 miles of water pipeline, and three spring developments) would be permitted in accordance with the provisions of 43 CFR 8560. The surface disturbance associated with new rangeland developments would affect only four acres in the study area.

The entire ISA Complex would be closed to ORV use. It is likely that illegal woodcutting will be an ongoing problem following wilderness designation because the vicinity of the study area has traditionally been used by Native Americans for this purpose. The primary impact from this activity will be surface disturbance resulting from ORV use along existing roads and ways and continued use of some existing ways for access. In general, ORV use within the ISA Complex will be administratively difficult to control due to the lack of topographic barriers along mesa tops and benches.

Energy and Mineral Resource Values

The U.S. Geological Survey (USGS) and U.S. Bureau of Mines (USBM) prepared a mineral assessment report for the Grand Gulch ISA Complex (USGS Open File Report 81-748 Gordon W. Weir and Thomas D. Light, 1981). The report indicated that the potential for oil and gas reserves in the ISA Complex is low to moderate. The potential for all other mineral and energy resources is low. Approximately 57 oil and gas wells have been drilled near the ISA Complex and five have been drilled inside. Shows of oil and gas were encountered in several strata. All of the wells were plugged and abandoned without production.

Impacts on Resources

The comparative impact table (Table 3) summarizes the effects on pertinent resources for alternatives considered including designation or nondesignation of the area as wilderness.

Local Social and Economic Considerations

Present economic uses and trends would not be significantly affected by wilderness designation. Recreation-related expenditures would contribute \$176,169 to \$814,703 annually to the local economy. Potential Federal revenues would be about \$111,150 less per year than with

GRAND GULCH INSTANT STUDY AREA COMPLEX

the No Action/No Wilderness Alternative because oil and gas leasing and livestock use could not be expanded. Federal revenues from commercial recreation would be about the same as with the No Action/No Wilderness Alternative.

Summary of ISA-Specific Comments

Public involvement has occurred throughout the wilderness review process. Comments received during the early stages of the EIS preparation were used to develop significant study issues and alternatives for the ultimate management of the ISA Complex.

During formal public review of the Draft EIS, a total of 222 inputs specifically addressing this ISA Complex were received from 1,258 commenters, including oral statements received at 17 public hearings on the EIS. Each letter or oral testimony was considered to be one input. Duplicate letters or oral statements by the same commenter were not counted as additional inputs or signatures. Each individual was credited with one signature or testimony regardless of the number of inputs. In general, 437 commenters supported wilderness designation for part or all of the ISA Complex, while 815 commenters were opposed. Six commenters addressed the relative merits of the EIS but took no formal position on wilderness designation.

The majority of those favoring wilderness designation were from other states. Of particular concern to them was the need to preserve the area and protect wilderness values for future generations and to add the natural diversity in the ISA Complex to the NWPS.

Those opposing wilderness were concerned that wilderness would restrict public access and harm state and local economies. They felt that there is no need for more wilderness and that the ISA Complex could be protected through other forms of management making designation unnecessary. Most of those opposing wilderness designation were from rural Utah.

No comment letters were received on the Final EIS.

One Federal agency, the USBM, commented on the Draft EIS for the Grand Gulch ISA Complex. USBM took no position regarding the designation of the ISA Complex but commented that BLM had underrated the petroleum potential of the ISA Complex.

There are four State sections (2,400 acres) in the ISA Complex. In commenting on the Draft EIS, the State of Utah expressed general opposition to wilderness designation but did not take a definite position regarding designation of the study area. The State commented that the Grand Gulch ISA Complex has the second highest wilderness values in the region with low to moderate conflicts. The State suggested that conflicts with livestock use and potential wildlife habitat improvements could be eliminated by a boundary restricted to the canyon rims. In addition, the State commented that wilderness designation may have a detrimental effect on cultural values in the ISA Complex due to increased activity and vandalism and limits imposed on mechanized law enforcement activities. The State suggested an administrative designation would allow more active management of the critical cultural resources in the area.

The State also indicated that acquisition of the four State sections would be likely.

The degree to which livestock operators would be permitted to use existing ways for vehicle access for the purposes of livestock management was questioned by the State.

The Grand Gulch ISA Complex is in San Juan County. The San Juan County Master Plan emphasizes multiple use of public lands and zones the ISA Complex as open range and forest land. The San Juan County Commission is opposed to wilderness designation for the Grand Gulch ISA Complex and has endorsed the Consolidated Local Government Response to Wilderness that opposes wilderness designation of BLM land in Utah. In commenting on the Draft EIS the Commission noted that designation of the ISA Complex as wilderness would be in conflict with the County Master Plan and that the area is penetrated by too many roads to classify it as roadless. The Commission also pointed out that State in-holdings would

GRAND GULCH INSTANT STUDY AREA COMPLEX

conflict with wilderness management and that the ISA Complex is identical to other areas already protected in the GCNRA, National Parks, National Monuments, and FS wilderness within the Colorado Plateau and in San Juan County.

GRAND GULCH ISA COMPLEX

Table 3
Comparative Summary of Impacts by Alternatives^a

Alternatives			
Issue Topic	Recommendation All Wilderness (105,520 Acres)	No Action/No Wilderness	Partial Wilderness (37,580 Acres)
Impacts on Wilderness Values	Wilderness designation would preserve wilderness values overall throughout the ISA. Naturalness and opportunities for solitude and primitive recreation would be directly and indirectly reduced in quality on much less than 1 percent (about 4 acres of direct disturbance and 10 acres of indirect disturbance) of the ISA by development of rangeland projects. Wilderness management criteria would be met and no wilderness values would be lost.	Wilderness values would not be protected by wilderness designation and loss would increase as intrusions increase. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 1,684 acres and indirectly reduced in quality on up to an additional 4,220 acres. The disturbance would be due to oil and gas exploration, vegetation treatments, and rangeland projects. Wilderness special features would not be significantly affected because of the relatively small area disturbed and required mitigation.	Implementation of this alternative would result in the same impacts as the No Action/No Wilderness Alternative.
Impacts on Mineral and Energy Exploration and Production	The potential for oil and gas exploration would be foregone. This would not result in a significant loss of oil and gas recovery. Because mineral production is not currently occurring and the area has no known potential for locatable minerals, implementation of this alternative would not result in a significant loss of locatable mineral recovery.	Exploration for oil and gas would be foregone on 47 percent of the ISA. There likely would not be a significant loss of oil and gas or other mineral production because of low probabilities of development.	With this alternative, impacts would be the same as for the No Action/No Wilderness Alternative.

GRAND GULCH ISA COMPLEX

Table 3 (Continued)
Comparative Summary of Impacts by Alternatives

		Alternatives	
Issue Topic	Recommendation All Wilderness (105,520 Acres)	No Action/No Wilderness	Partial Wilderness (37,580 Acres)
Impacts on Wildlife Habitat and Populations	Wilderness designation would protect wildlife habitat from disturbance and maintain present wildlife populations through the preservation of solitude. Opportunities to provide vegetation, diversity, and additional forage that would benefit big game and certain nongame species through vegetation treatments would be precluded.	Implementation of the land treatment and water development would increase wildlife diversity, populations, forage, and ecotones. Oil and gas exploration would displace some wildlife species on less than 1 percent of the ISA during the lifetime of these projects. Adverse impacts on endangered, threatened, or other special status species would not be significant because of required mitigation and the small area of projected disturbance. Bighorn sheep habitat would not be affected.	Impacts would be the same as with the No Action/No Wilderness Alternative because administration of the area and projected and planned activities would be the same for both alternatives. However, the primitive area would receive statutory rather than administrative protection of wilderness values. The statutory designation would be much less subject to change in the future.
Impacts on Livestock Management	Wilderness designation would result in an inconvenience and slightly increased cost of management for eight livestock operators. The potential for increases in forage production (390 AUMs) through vegetation treatment would be foregone.	Few, if any, changes in livestock use or management techniques are expected with this alternative. Livestock management would not be affected by the No Action/No Wilderness Alternative because present access and management would continue.	Impacts would be the same as with the No Action/No Wilderness Alternative because administration of the area and projected and planned activities would be the same for both alternatives. However, the primitive area would receive statutory rather than administrative protection of wilderness values. The statutory designation would be much less subject to change in the future.

GRAND GULCH ISA COMPLEX

Table 3 (Continued)
Comparative Summary of Impacts by Alternatives

Issue Topic	Alternatives		
	Recommendation All Wilderness (105,520 Acres)	No Action/No Wilderness	Partial Wilderness (37,580 Acres)
Impacts on Cultural Resources	<p>Sites would be protected from most intentional and unintentional damage. Increased recreational use and/or increased inaccessibility may increase certain types of vandalism, but the benefits of protection from disturbance and ORV use would probably outweigh potential losses. Cultural resource management practices may be restricted in order to protect other wilderness values.</p>	<p>Under the management prescriptions for Cedar Mesa ACEC, activities within the portion of the ISA Complex in the ACEC would be approved only with special conditions to protect cultural resources. Measures that limit surface disturbance would reduce direct and indirect impacts to cultural resources. Cultural properties eligible for the National Register of Historic Places would be surrounded by an avoidance area sufficient to allow permanent protection. Cultural resources in the Grand Gulch special emphasis area (Grand Gulch Primitive Area and a portion of Slickhorn Canyon WSA) would receive additional protection by management to exclude surface disturbing activities. All sites in the unit would continue to receive protection under existing laws. In approximately 45,500 acres of the ISA Complex, OHV use would be limited to designated ways and trails which would assist in limiting secondary impacts to cultural resources caused by vehicular access. Vandalism may increase in some portions of the ISA Complex due to the attractive nature of the resources present. Cultural resources would be managed for information potential, public values, and conservation.</p>	<p>Impacts would be the same as with the No Action/No Wilderness Alternative.</p>

GRAND GULCH ISA COMPLEX

Table 3 (Continued)
Comparative Summary of Impacts by Alternatives

Issue Topic	Alternatives		
	Recommendation All Wilderness (105,520 Acres)	No Action/No Wilderness	Partial Wilderness (37,580 Acres)
Impacts on Recreation	<p>Opportunities for primitive recreation would be preserved. Vehicular use would be eliminated. Loss in opportunities for ORV use would not be significant because there is presently little vehicular use in the area (100 visitor days per year) and use is restricted by management and terrain.</p>	<p>Opportunities for primitive recreation would not be significantly reduced by surface disturbing activities because protected disturbance would be small in proportion to the ISA Complex and would not be in the canyon systems that are used for primitive recreation. Primitive recreation use, including commercial outfitting would increase and may have to be controlled in order to ensure a high quality primitive recreational experience. Vehicular use would be limited to designated ways and trails and would primarily affect the mesa tops. Use of designated ways and trails, presently involving less than 100 visitor days per year, would remain relatively light.</p>	<p>Impacts would be the same as with the No Action/No Wilderness Alternative.</p>

GRAND GULCH ISA COMPLEX

Table 3 (Continued)
Comparative Summary of Impacts by Alternatives

Issue Topic	Alternatives		
	Recommendation All Wilderness (105,520 Acres)	No Action/No Wilderness	Partial Wilderness (37,580 Acres)
Impacts on Local Economic Conditions	<p>Present economic uses and trends would not be significantly affected. Recreation-related expenditures would contribute between \$176,169 and \$814,703 annually to the local economy. Potential Federal revenues would be about \$111,150 less per year than with the No Action/No Wilderness Alternative because oil and gas leasing and livestock use could not be expanded. Federal revenues from commercial recreation would be about the same as with the No Action/No Wilderness Alternative.</p>	<p>Present economic uses and trends would not be significantly affected. Recreation-related expenditures would contribute between \$176,169 and \$814,703 annually to the local economy. Federal revenues could be increased by as much as \$136,154 annually if unleased areas open to leasing were leased for oil and gas, if livestock use expanded to utilize 390 additional AUMs from vegetation treatments, and if commercial recreation use expands at 7 percent annually.</p>	<p>Impacts would be the same as with the No Action/No Wilderness Alternative.</p>

^a The BLM San Juan RMP was approved following publication of the BLM Utah Statewide Wilderness EIS. The analysis of impacts summarized here has been modified to reflect the more restrictive management practices established by the RMP.

GRAND GULCH INSTANT STUDY AREA COMPLEX

Appendix
Estimated Costs of Acquisition of Non-Federal Holdings Within Areas Recommended for Designation ^a

Legal Description (Prior to any Subdivision)	Total Acreage	Number of Owners (If Parcel has been subdivided)	Type of Ownership by Estate (Federal, State, Private, Other) (Surface Estate) (Subsurface Estate)	Presently Proposed for Acquisition (Yes, No)	Preferred Method of Acquisition (Purchase, Exchange, Other)	Estimated Cost of Acquisition (Land Costs)	Estimated Cost of Acquisition (Processing Costs)
T. 38 S., R. 17 E., Sec. 16	480.00		State	No	Exchange		\$1,500
T. 39 S., R. 16 E., Sec. 36	640.00		State	No	Exchange		\$2,000
T. 39 S., R. 17 E., Sec. 32	640.00		State	No	Exchange		\$2,000
T. 40 S., R. 17 E., Sec. 16	640.00		State	No	Exchange		\$2,000

^a The estimated costs listed in this appendix in no way represent a Federal appraised value of the land or mineral estate, but are rough estimates based on sales or exchanges of lands or mineral estates with similar characteristics to those included in the WSA. The estimates are for purposes of establishing a range of potential costs to the government of acquiring non-Federal holdings and in no way represent an offer to purchase or exchange at the cost estimate included in this appendix.